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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/419,787 10/18/99 FUKU

M 056151

EXAMINER

MMC2/0412

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MITCHELL, J

ART UNIT

PAPER NUMBER

2822

DATE MAILED:

04/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

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**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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6

DATE MAILED:

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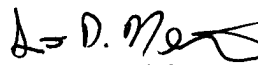
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The action of 3/13/01 failed to be sent in its entirety. Enclosed is a copy of the complete office action.

A shortened statutory period for reply is restarted to expire, THREE MONTHS from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to James Mitchell whose telephone number is (703) 305-0244.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956. The fax number for the group is (703) 308-7722.


Stephen D. Meler
Primary Examiner

jmm
April 9, 2001

DETAILED ACTION

Claim Objections

1. Claim 3 objected to because of the following informalities: typographical error "power chip circuit board circuit board" (Line 3). Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 rejected under 35 U.S.C. 102(b) as being anticipated by Giho (Vol. 72, No.12, 1998).
4. Giho discloses power chip ("chip"), electrical component on board ("board"), and outer case removably fixed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2,3,5,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giho as applied to claim 1 above, and further in view of Oshima (U.S 5,747,875) and Ahmann (U.S 4,037,270).

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7. Giho shows screws for attaching substrate to outer case, but does not disclose connector attached to circuit board or compressed contact.

8. In regards to claims 2 and 3, Oshima (Figure 16) utilizes pawl as defined by an interdental space in outer case (101), and electrical means including connector fitted to lead (TH(E6))).

9. It would have been obvious to one of ordinary skill in the art as is well known in the art to use connectors in order to assist in securing lead to circuit board (131) and pawl as an alternative support means.

10. In regards to claim 5, Giho discloses lead connected to power chip, but no spring.

11. Ahmann shows compressed spring (38) for contact (Line 3 Lines 67-1, Columns 2-3).

12. It would have been obvious to one of ordinary skill in the art to use spring lead as an alternative contact means since springs leads are well known contacts in the art.

13. With respect to claim 6, Giho discloses claimed invention except for the screws attaching bottom board not top, it would have been obvious to one of ordinary skill in the art to use screws as a means to fixing control board, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Allowable Subject Matter

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14. Claim 4 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamane et al. (U.S 6,181,590), Yasukawa et al. (45,793,106).

The cited art discloses: ref. 1,2 screw attaching means.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mitchell whose telephone number is (703) 305-0244. The examiner can normally be reached on M-F 10:30-8:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead II can be reached on (703) 308-4083. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3230 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

jmm
April 9, 2001

Stephen D. Meier
Primary Examiner